

The dangers of drug abuse make front-page news all over the world: methamphetamine labs in rural homes; drugs that cause memory loss, like Rohypnol, being used on unknowing victims in clubs and bars; and world-class athletes abusing steroids. The goals of this module are to help students identify and understand the messages about drugs that are presented in the media and to increase their knowledge about the dangers, harmful effects, and consequences of substance abuse.

This module focuses on three types of drugs that are often in today’s headlines:

- Methamphetamine—a stimulant that is synthetically created, often in small, home-based labs
- Steroids—performance-enhancing drugs that are injected or taken orally by athletes to increase strength and endurance
- GHB, Rohypnol, MDMA, and Ketamine—These are some of the more popular “club drugs” or drugs that can cause feelings of disorientation and memory loss and are often used in clubs, bars, or at parties

Summary

The chart below summarizes the information your child will learn in this module about the effects of these drugs on the brain and body.

Methamphetamine	Methamphetamine is an illegal stimulant that speeds up the brain’s functioning by affecting the neurotransmitter dopamine. Methamphetamine has a shape, size, and chemical structure similar to that of dopamine. This makes it easy for methamphetamine to “fool” the neurons into releasing more dopamine. This produces a change in the neurochemistry of the brain that results in intense cravings for increasing amounts of methamphetamine. Methamphetamine is neurotoxic: it kills brain cells.
Steroids	Anabolic steroids, the most frequently abused steroids, are taken orally or injected to enhance athletic performance, increase stamina, and improve physical appearance. Most amateur and professional sports organizations have banned the use of steroids for the following reasons: steroids are illegal, and taking them may give an unfair advantage to one athlete over another; and steroids have dangerous side effects, including damage to the liver and kidneys and high blood pressure and heart problems, instances of which have lead to death.
GHB, Rohypnol, MDMA, and Ketamine	The “club drugs” GHB, Rohypnol, and ketamine have been associated with sexual assault because they decrease inhibition and cause memory loss. GHB and Rohypnol affect the neurotransmitter GABA (gamma amino butyric acid). GABA inhibits the ability of neurons to send messages, thereby stopping the communication between neurons. Ketamine also disrupts the ability of neurons to communicate by affecting a neurotransmitter called NMDA (N-methyl D-aspartate). MDMA, known commonly as ecstasy, causes neurons to release increased amounts of three neurotransmitters: dopamine, norepinephrine, and serotonin. This causes feelings of pleasure in the short term, but can affect users for days after use due to neurotransmitter depletion in the brain.

As part of this module, your child was asked to think about the impact that methamphetamine, steroids, and date rape drugs have on individuals and on society. You can make the connection from school to home by continuing this conversation. Information on the news or in the media might provide a good conversation starter. Talk with your child about the impact of drugs on society. What influence do you think new scientific advances might have in encouraging people to make decisions to keep themselves safe and healthy?

Resources

National Institute on Drug Abuse (NIDA)

www.drugabuse.gov, 301-443-1124

This Web site contains information about drug abuse as well as a section designed specifically for parents, teachers, and students.

National Clearinghouse for Alcohol and Drug Information (NCADI)

<http://ncadi.samhsa.gov>, 1-800-729-6686

NCADI is the world's largest resource for information and materials concerning substance abuse. Many free publications are available here.

Parents: The Anti-Drug

www.theantidrug.com

This site is designed for parents and covers the risks and consequences of various drugs, and provides news, advice, and real-life stories.

***Buzzed: The Straight Facts About the Most Used and Abused Drugs from Alcohol to Ecstasy.* Kuhn, C., Swartzwelder, S. and Wilson, W.** New York: W. W. Norton & Company, 2003. A highly informative, detailed review of widely abused drugs.

***Date Rape Drugs.* Kehner, G.B.** Philadelphia, PA: Chelsea House Publishers, 2004. Part of the "*Drugs: The Straight Facts*" series. Discusses the history, effects, usage trends, and other information about GHB, Rohypnol, and ketamine.

***Body Enhancement Products.* Santella, T.M.** Philadelphia, PA: Chelsea House Publishers, 2005. Part of the "*Drugs: The Straight Facts*" series. Discusses the health risks of steroids and other body enhancement products.